

FOCUS AREA 3: ~~COAL MINING~~, URANIUM, ~~COAL AND OTHER HARD ROCK MINING~~
AND COMMUNITIES CONCERNED WITH POTENTIAL IMPACTS TO WATER
SOURCES AND NUCLEAR SAFETY

Goal 3: Demonstrate progress on significant national environmental justice challenges
Challenges: (1) Lead Disparities, (2) Drinking Water, (3) Air Quality, and (4) Hazardous Waste
Sites Focus areas: 1. Work collaboratively with federal, ~~and~~-state and tribal partners to identify,
investigate and cleanup the worst contaminated areas; ~~and~~ 2. Enhance awareness on the
Superfund cleanup decision process and enhance transparency of regulators work and
jurisdiction in the Grants Mining District of northwestern New Mexico.

KEY ACTIVITIES LEAD COMMENTS / STATUS

Proposed Activities for the Next Two Years:

1. Continue to make progress in the Superfund's Site Assessment, Removal and Remedial
programs for assessing and addressing potential threats to human health and the environment in
the designated Superfund-hardrock mining and mining-related areas – while keeping the public
informed on such progress.

2. Continue to ~~Implement~~ the outreach/education plan to increase awareness of the Superfund
Program's baseline studies, processes, regulatory involvement, and the public's right to know
about the following ongoing activities:

- Site assessments and inspections;
- Removal investigations and environmental engineering and cost analyses;
- Groundwater quality testing, ~~and~~ monitoring and reporting for the San Mateo Creek
Basin multi-phased ground water investigation; and
- Oversight of responsible parties' cleanups at National Priority List (NPL) sites.

3. Work collaboratively with federal, ~~and~~-state and tribal partners as part of the Grants Mining
District 2015 – 2020 Five-Year Plan to Assess and Address Health and Environmental Impacts
from Uranium Mining and Milling (2015 – 2020 Five-Year Plan). This work will include ~~the~~
exchange of technical data and other information on environmental impacts associated with
legacy uranium mining and milling operations within the Grants Mining District, ~~research, and in~~
environmental ~~6SF 6SF 6SF~~. Information regarding the Grants Mining District are posted at:
<http://www2.epa.gov/grants-mining-district>. –

The 2015 – 2020 Five-Year Plan was finalized in June, 2016, and succeeds the first~~In succession~~
~~to the 2010 – 2015 Five-Year Plan for the Grants Mining District, the 2015 – 2020 Five Year~~
Plan for the Grants Mining District was finalized in June 2016. Both five-year plans can be
found and is at <http://www2.epa.gov/grants-mining-district>. The ~~Final~~ 2015 – 2020 Five-Year
Plan and the results of the first phase of the San Mateo Creek Basin ground water
investigation~~groundwater results in the Grants Mining District was~~ were presented and discussed
at a series of meetings with the San Miguel community, ~~with~~ the Acoma Pueblo Leadership, and
~~with~~ members of the Multi-cultural Assessment for a Safe Environment (MASE), on November

Formatted: Indent: Left: 0.5", Bulleted + Level: 1 +
Aligned at: 0.75" + Indent at: 1"

15-16, 2016, and with the community of Grants, NM, on November, 17, 2016. ~~The EPA Superfund Division has been working collaboratively with federal and state partners to assess and address contamination and~~

clean up within the Grants Mining District. The other federal, state and tribal partners that currently participate in the 2015 – 2020 Five-Year Plan are the following:

- U.S. Department of Energy (DOE) Office of Legacy Management;
- U.S. Nuclear Regulatory Commission (NRC);
- U.S. Department of Interior – Bureau of Land Management (BLM);
- U.S. Department of Health and Human Services – Agency for Toxic Substances and Disease Registry (ATSDR);
- U.S. Department of Agriculture – Forest Service (USFS);
- New Mexico Environment Department (NMED);
- New Mexico Energy, Minerals, and Natural Resources Department – Mining and Mineral Division (MMD);
- New Mexico Health Department;
- Pueblo of Acoma Environment Department; and
- Pueblo of Laguna Environmental and Natural Resources Department; e.g., DOE, NRCE, EPA, USGS, NMED, NMSEO, NMMD (Recommendation from MASE member, Mr. Petuuche Gilbert).

Additional federal and state agencies involve with the ongoing work within the Grants Mining District are the U.S. Geological Survey (USGS) and the New Mexico Office of the State Engineer (OSE).

4. Collaborate with federal, and state and tribal partners in performing the EPA Region 6 multi-phased San Mateo Creek Basin ground water investigation. The ground water investigation included an assessment of water quality impacts from legacy uranium mining, with specific emphasis on the impacts from mine water discharges. The initial phase (Phase 1) ground water investigation focused on the shallow alluvial ground water and included the drilling of boreholes, construction of monitoring wells, and collection of ground water samples for analysis of metals, radionuclides and other parameters. The Phase 1 report was completed in August, 2016 and copies were provided to key stakeholders. A second phase (Phase 2) of the ground water investigation has been ongoing since 2015. Phase 2 includes an expansion of the alluvial aquifer investigation and a study of the bedrock formation aquifers, including the San Andres/Glorietta (SAG) aquifer, the regional aquifer for the village of Milan and the town of Grants. EPA monitoring wells, industry monitoring wells and several private water wells have been sampled from multiple bedrock formation aquifers, including the Dakota Sandstone, the Morrison West Water Canyon Member and Bluff Sandstone, the Chinle Formation, and the SAG as part of Phase 2. A Phase 2 ground water report will be completed in 2017 that documents the findings of the investigation, groundwater quality assessment and groundwater modeling in assessing the San Andres Glorietta Aquifer and contamination movement (Recommendation from MASE member, Mr. Petuuche Gilbert).

Formatted: Bulleted + Level: 1 + Aligned at: 0.29" +
Indent at: 0.54"

5. Collaborate with federal and state partners in doing a comprehensive health study in regard to uranium mining and milling impacts in the Grants Mining District (Recommendation from MASE member, Mr. Petuuche Gilbert).

Commented [PM1]: ATSDR and NM Department of Health should deal with this recommendation.

56. Use community input to develop realistic plans supported by affected communities to make progress by the Superfund Site Assessment, Removal and Remedial programs in assessing and addressing potential health and environmental threats from the designated Superfund-mining and mining-related areas – while keeping the public informed (Recommendation from MASE member, Candace Head-Dylla). Such plans shall include collaboration with the other federal, state, and tribal partners as specified in the 2015 – 2020 Five-Year Plan, as well as OSE and the USGS. 6SF 6SF 6SF/OEJTIA to eliminate, reduce or manage risks to human health and the environment within the Grants Mining District. These partners include: U.S. Dept of Energy—Office of Legacy Management; U.S. Dept of the Interior—Bureau of Land Management; the Pueblo of Acoma Environmental Department; the Pueblo of Laguna Environmental and Natural Resources Department; the NM Environmental Department; the NM Energy, Minerals, and Natural Resources Department—Mining and Minerals Division; and U.S.G.S. The specific aquifers were not looked at specifically at this time; instead identified the drainage basin—San Mateo Creek Basin. Under the Phase 1 Ground Water investigation three wells sampled at the request of MASE. Additional wells were sampled under Phase 2 Ground Water Investigation.

With respect to health studies, the main recommendation of a previous health study by the New Mexico Department of Health involving biomonitoring (i.e., biometric study 100 urine samples and 106 drinking water, well water and spring water samples) in the Grants/Milan area and Laguna Pueblo was to reduce exposure to uranium in water and other sources. The EPA Superfund Division will continue to facilitate efforts by the 2015 – 2020 Five-Year Plan partners to assess and address contamination that eliminates, reduces or manages risks to human health and the environment. This work will include continuing the ongoing San Mateo Creek Basin ground water investigation to determine the extent of uranium concentrations and other contaminants in the alluvial and bedrock formation aquifers. It will also include the sampling of private wells and, if necessary, installing point-of-use mitigation systems at residences with elevated levels of uranium or other contaminants. EPA will also continue to coordinate with partners to determine the status of any other ongoing or planned health studies in the Grant Mining District. Phase 1 Groundwater Investigation monitoring results in the Homestake mining district was presented to the MASE on Nov 16, 2016, Grants, NM. MASE expressed concerns with the NMED background sampling locations. Acoma Pueblo officials expressed their concern with windblown contamination since they experience severe dust storms and asked for Air Quality Monitoring due to dust

7. Address the need to cleanup groundwater in our sparsely populated EJ Communities in Grants County. Laura Watchempino, MASE member

Commented [PM2]: Already discussed in previous items about San Mateo Creek ground water investigation.

8. EPA's 2015-2020 Five-Year Plan for the Grants Mining District in New Mexico to Assess and Address Health and Environmental Impacts of Uranium Mining and Milling fails to address any health assessments. Laura Watchempino, MASE member a. A comprehensive health assessment throughout the Grants Mining District should be conducted in collaboration with all governmental partners.

Commented [PM3]: ATSDR and NM Dept of Health should deal with this recommendation.

9. ~~b. The health assessment should identify all threats to human health from existing and potential new uranium mines-~~

Commented [PM4]: Same comment as above.

10. Regions 6 and 9 will communicate and work collaboratively on uranium cleanup work with in the Grants Mining District and Navajo Nation. Laura Watchempino, MASE member

11. ~~Uranium mining and milling waste piles should be lined with leak detection systems to permanently encapsulate and isolate hazardous materials from our communities and the environment. "Cap from grant mining district coming to pueblo. Acoma asked to be included in 5-year plan as well as part of any health studies, as the State and Federal Government has yet to study health impacts on Acoma pueblo. The 5-year plan lacks critical partners such as Bureau of Indian Affairs and Indian Health Services yet identifies only partner as NMDOH. FOLLOWUP REQUIRED~~

~~and cover" cleanup technology fails to address the risks of groundwater contamination from uranium waste pile seepage over time. Laura Watchempino, MASE member~~

Commented [PM5]: A Feasibility Study will be performed at the Homestake NPL site and should include an alternative for off-site disposal of the tailing material. It is not known whether such alternative will best meet the nine CERCLA criteria for remedy selection. EPA at this time cannot include this item as part of the plan. Mine waste piles could potentially be excavated and consolidated into on-site disposal cells at some legacy mines. They would be capped with clean soil. Such work would minimize potential exposure. However, the cells would likely not be lined. Also, BIA has been asked to participate as a partner in the Five-Year Plan and refused.